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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,058	06/27/2003	Tadashi Hasebe	45355	4152
1609	7590	03/29/2005	EXAMINER	
ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON, DC 20036			RONESI, VICKEY M	
		ART UNIT	PAPER NUMBER	
		1714		

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

(1)

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/607,058	HASEBE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vickey Ronesi	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 18 January 2005.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-16 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-16 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-16 are now pending in the application.
2. The outstanding claims objections and rejections under 35 U.S.C. § 112(2) have been withdrawn in light of applicant's amendment filed 1/18/2005.
3. The outstanding 35 U.S.C. § 102(b) rejection has been withdrawn in light of applicant's amendment filed 1/18/2005.
4. The new grounds of rejection have been set forth below in view of applicant's amendment that the fatty acid ester has 8-12 carbon atoms. Prior art for this range of carbon atoms was not heretofore discussed. For this reason, *a second non-final Office Action is as follows.*

#### ***Specification***

5. On page 8, line 4, the misspelled "chitoan" should be replaced with the correct spelling, "chitosan."

#### ***Claim Objections***

6. Claim 1 is objected to because the term "the said" (on lines 3, 6, and 7 of the claim) is a redundant expression and should be replaced with either "the" or "said." By stating "the said," it is as if the term "the the" or "said said" were written, which is unacceptable.

Claims 2-6 are objected to because of the use of the phrase "the biodegradable polyester resin composition having the antistiatic ability as set forth in Claim 1" (emphasis added) where

the term “the antistatic ability” causes confusion since it suggests that the antistatic alone was set forth in claim 1. It is suggested that the word “the” be removed from the term.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 7 and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claim 7, the applicant's specification as originally filed does not support the exclusion of an expanded (i.e., foamed) structure in the final article. Case law holds that the mere absence of a positive recitation is not basis for an exclusion. *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984).

With respect to claim 8, the applicant does not have basis to exclude starch derivatives. Page 8, lines 4-5 of the specification discloses chitin, chitosan, and starch, not all starch derivatives. Should applicant amend claim 8 to exclude chitin, chitosan, and starch, then this portion of the rejection will be overcome.

8. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "said resin is in the absence of starch derivatives" causes confusion since it is not the resin itself that is free of starch derivatives but the resin composition. It is suggested that the word "composition" be inserted after "said resin" and that the phrase "is in the absence of" be replaced with either "excludes" or "does not incorporate."

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 9 and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kakizawa et al (US 6,110,578) in view of evidence given by Hayashida et al (US 5,346,944).

Kakizawa et al discloses a moldable biodegradable expanded material (abstract) and a non-expanded film made of said expanded material (col. 44, lines 44-46) comprising 100 parts by weight hydroxycarboxylic acid based polyester wherein the hydroxycarboxylic acid is preferably L-lactic acid or D-lactic acid (col. 6, line 16) and wherein the lactic acid is present in the polyester up to 99 mol % (col. 14, line 19), 0.01 to 5 parts by weight of a lubricant such as glycerin monostearate (col. 18, lines 49-51, 58-59), and 0.01 to 5 parts by weight of an antistatic agent such as alkyl sulfonate (col. 18, lines 28-30, 43). Although other hydroxycarboxylic acids,

lubricants, and antistatic agents are disclosed, nevertheless, given that a reference that clearly names a claimed species anticipates that species no matter how many additional species are named, it is clear that Kakizawa et al anticipates that species. See MPEP § 2131.02.

Given that the reference discloses glycerin monostearate per so (i.e., higher stearates contents are not disclosed) it is the examiner's position that it is inherent that the glycerin monostearate is present in a major amount and meets the claimed limitation of 50 w/w% higher.

Note that the disclosed amounts of glycerin monostearate and alkyl sulfonate give a ratio of glycerin monostearate to alkyl sulfonate that overlaps those presently claimed. For instance, a ratio of 80/20 is obtained when the glycerin monostearate is present in amounts from 5 to 0.04 parts and the alkyl sulfonate is present in amounts from 1.25 to 0.01 parts.

In addition, although Kakizawa et al does not teach the use of glycerin monostearate as an antistatic agent, it is inherent that it behaves as an antistatic agent since a material and its properties are inseparable. Evidence to support the examiner's position is found in Hayashida et al which teaches that glycerin monostearate behave as an antistatic agent (col. 5, line 39).

In light of the above, it is clear that Kakizawa et al anticipates the present claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-10 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakizawa et al (US 6,110,578) in view of Hayashida et al (US 5,346,944) and Okumura et al (US 6,582,813).

Kakizawa et al discloses a moldable biodegradable expanded material (abstract) and a non-expanded film made of said expanded material (col. 44, lines 44-46) comprising 100 parts by weight hydroxycarboxylic acid based polyester wherein the hydroxycarboxylic acid is preferably L-lactic acid or D-lactic acid (col. 6, line 16) and wherein the lactic acid is present in the polyester up to 99 mol % (col. 14, line 19) and 0.01 to 5 parts by weight of an antistatic agent such as alkyl sulfonate (col. 18, lines 28-30, 43).

Kakizawa et al does not disclose an antistatic agent comprising two antistatic components such as a glycerin fatty acid ester and alkyl sulfonate, nonetheless, it appears to be open to any suitable antistatic agent (or combinations thereof) and only gives a limited list of known antistatic agents (col. 18, lines 41-44).

Hayashida et al discloses a polyolefin resin composition and teaches that a good antistatic effect is obtained when a glycerin fatty acid monoester is combined with another known antistatic agent, alkyldiethanolamide (col. 3, lines 46-53; col. 5, lines 36-45), in a ratio of 50/50 to 95/5 (col. 5, lines 46-53). The glycerin fatty acid monoester includes glycerin monolaurate (12 carbons) and glycerin monopalgonate (9 carbons) (col. 5, lines 37-45). The amount of total antistatic agent added to the composition is preferably from 0.05 to 2.0 pbw per 100 pbw resin (col. 5, lines 54-64), which is critical to balance the antistatic effect with film transparency.

The combination of the two antistatic agents results in an improved antistatic property. Hayashida et al does not disclose a combination of glycerin fatty acid monoester with any other antistatic agent other than alkyl diethanolamide.

It is the examiner's position that the use of alkyl diethanolamide and alkyl sulfonate as antistatic agents is equivalent and interchangeable. Evidence to support to support the examiner's position is found in Okumura et al which discloses polyester film and teaches that known antistatic agents include alkyl sulfonates and alkyl diethanolamides (col. 2, lines 56-65). Kakizawa et al also teaches the use of alkyl sulfates as an exemplified antistatic agent (col. 18, line 43).

Given Hayashida et al's teachings regarding improved antistatic properties when a combination of glycerin fatty acid monoesters with a known antistatic agent and given that Okumra et al provides evidence of the functional equivalency of alkyl diethanolamides and alkyl sulfonate antistatic agents, it would have been obvious to one of ordinary skill in the art to substitute alkyl diethanolamide with alkyl sulfonate and thereby arrive at the presently cited claims. Case law holds that the mere substitution of an equivalent (something equal in value or meaning, as taught by analogous prior art) is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. See *In re Ruff* 118 USPQ 343 (CCPA 1958).

It is noted that applicant's present examples in the specification will be insufficient to support a claim of unexpected results against Kakizawa et al in view of Hayashida et al given that only alkyl sulfonates are exemplified. An unexpected result over the prior art has not been established since applicant has not shown that synergistic behavior does not occur when glycerin

fatty acid monoesters are combined with other known antistatic agents such as alkyl diethanolamides (as disclosed by Hayashida et al).

Moreover, it is well settled in case law that it is *prima facie* obvious to combine two ingredients, each of which is targeted by the prior art to be useful for the same purpose. *In re Lindner* 457 F. 2d 506,509, 173 USPQ 356, 359 (CCPA 1972). Once again, applicant's allegation of unexpected results is unsupported since no criticality has been established with respect to the amount of monoester in the glycerin fatty acid. Applicant's have not shown criticality for the value 50 w/w % since examples only show the difference between 80 w/w% (sample-1) and 40 w/w% (sample-4). Such examples provide no probative value.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kakizawa et al (US 6,110,578) in view of Hayashida et al (US 5,346,944) and Okumura et al (US 6,582,813).

The discussion with respect to Kakizawa et al, Hayashida et al, and Okumura et al in paragraph 8 above is incorporated here by reference.

Hayashida et al does not explicitly disclose the use of a glycerin fatty acid monoester having 8 carbons atoms like presently claimed, nonetheless, it does teach the use of glycerin monolaurate (12 carbons), glycerin monopalgonate (9 carbons), "and the like" (col. 5, line 41).

Although Hayashida et al is silent, it is the examiner's position that it would have been obvious to one of ordinary skill in the art to expect similar beneficial results with compounds having at least one fewer -CH<sub>2</sub>- groups. Case law holds that homologs (compounds differing regularly by the successive addition of the same chemical group, e.g., by -CH<sub>2</sub>- groups) are

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generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977).

Given that Hayashida et al is open to the use of similar glycerin fatty acid monoesters, it would have been obvious to one of ordinary skill in the art to utilize a glycerin fatty acid monoester with 8 carbons and thereby arrive at the presently cited claim.

***Correspondence***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

3/21/2005

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